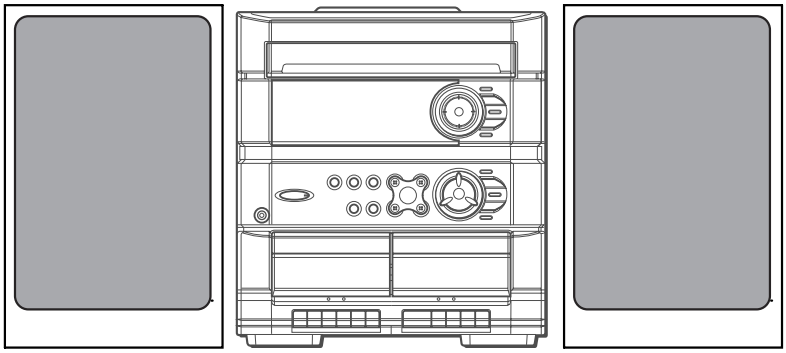
aiwa SERVICE

Z-L120 EZ,K



SERVICE MANUAL

COMPACT DISC STEREO SYSTEM

BASIC TAPE MECHANISM : ZZM-2 PR1NM
BASIC CD MECHANISM : BZG-5 ZD3N1M

SYSTEM	CD CASSEIVER	SPEAKER	REMOTE CONTROLLER
Z-L120	CX-ZL120	SX-ZL120	RC-ZAS02

- This Service Manual is the “Supplement” and replaces “Simple Manual” of Z-L120 <EZ,K>, (S/M Code No. 09-011-439-5T2).
- This Service Manual contains information about the difference between Z-L120 <EZ,K> and Z-L220 <LH>. If requiring other information, see Service Manual of Z-L220 <LH>, (S/M Code No. 09-011-439-5R1).
- If requiring information about the CD mechanism, see Service Manual of BZG-5, (S/M Code No. 09-00C-353-3N2).

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S/M Code No. 09-012-439-5S1

SUPPLEMENT DATA

SPECIFICATIONS

Main unit CX-ZL120

<FM tuner section>

Tuning range	87.5 MHz to 108 MHz
Usable sensitivity (IHF)	13.2 dBf
Antenna terminals	75 ohms (unbalanced)

<MW tuner section>

Tuning range	531 kHz to 1602 kHz (9 kHz step) 530 kHz to 1710 kHz (10 kHz step)
Usable sensitivity	350 µV/m
Antenna	Loop antenna

<LW tuner section>

Tuning range	144 kHz to 290 kHz
Usable sensitivity	1400 µV/m
Antenna	Loop antenna

<Amplifier section>

Power output	Rated: 24 W + 24 W (6 ohms, T.H.D. 1 %, 1 kHz) Reference: 30 W + 30 W (6 ohms, T.H.D. 10 %, 1 kHz)
Total harmonic distortion	0.15 % (10 W, 1 kHz, 6 ohms, DIN AUDIO)
Inputs	VIDEO/AUX/PHONO IN: 500 mV
Outputs	SPEAKERS: accept speakers of 6 ohms or more PHONES (stereo jack): accepts headphones of 32 ohms or more

<Cassette deck section>

Track format	4 tracks, 2 channels stereo
Frequency response	50 Hz – 10000 Hz
Recording system	AC bias
Heads	DECK 1: Recording/playback head x 1, erase head x 1 DECK 2: Playback head x 1

<Compact disc player section>

Laser	Semiconductor laser (λ =780 nm)
D/A converter	1 bit dual
Signal-to-noise ratio	85 dB (1 kHz, 0 dB)
Harmonic distortion	0.05 % (1 kHz, 0 dB)
Wow and flutter	Unmeasurable

<General>

Power requirements	230V AC, 50 Hz
Power consumption	80 W
Dimensions of main unit (W x H x D)	360 x 395.3 x 348.8 mm ($14^{1}/_{4}$ x $15^{5}/_{8}$ x $13^{3}/_{4}$ in.)
Weight of main unit	7.2 kg (15 lbs 14oz)

Standby power consumption
If the power-economizing is OFF: 22W
If the power-economizing is AUTO or ON: 0.9W

Speaker system SX-ZL120

Cabinet type	2 way, bass reflex
Speakers	Woofer: 130 mm ($5^{1}/_{8}$ in.) cone type Tweeter: 20 mm ($^{13}/_{16}$ in.) ceramic type
Impedance	6 ohms
Output sound pressure level	89 dB/W/m
Dimensions (W x H x D)	260 x 495 x 260 mm ($10^{1}/_{4}$ x $19^{1}/_{2}$ x $10^{1}/_{4}$ in.)
Weight	4.5 kg (9 lbs 15 oz.)

• Design and specifications are subject to change without notice.

ELECTRICAL MAIN PARTS LIST

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
IC			
	8B-MA6-615-010		C-IC,LC866560-5T63
	87-A21-831-010		IC,SPS-422-1-F1
	87-A21-419-040		C-IC,NJM14558MD-TE2
	87-A21-893-040		C-IC,NJM14558V-TE2
	87-A21-443-040		C-IC,M62495AFP
	87-A21-695-010		IC,LA1845L
	87-070-127-110		IC,LC72131D
	87-A20-440-040		C-IC,BU1920FS
TRANSISTOR			
	87-A30-515-080		TR,2SA1979O/Y
	87-A30-559-010		TR,CSB1370EF
	87-A30-492-080		TR,2SC5343G
	87-A30-076-080		C-TR,2SC3052F
	87-A30-075-080		C-TR,2SA1235F
	87-A30-107-070		C-TR,CMBT5401
	87-A30-484-080		C-TR,KRA102S
	87-026-610-080		TR,KTC3198GR
	87-026-245-080		TR,DTC114ES
	87-026-269-080		TR,DTA114ES
	87-026-609-080		TR,KTA1266GR
	87-A30-190-080		TR,CC5551
	87-A30-106-040		C-TR,CMBT5551
	87-A30-091-080		FET,2SJ460
	87-A30-090-080		FET,2SK2541
	87-A30-062-080		C-TR,KRC104S
	87-A30-495-080		TR,2SA1981Y
	87-A30-234-080		TR,CSC4115BC
	89-327-143-080		TR,2SC2714O
	87-A30-489-080		C-TR,KRA107S
	89-503-602-080		C-FET,2SK360E
	87-A30-086-040		C-TR,CSD1306E
	87-A30-494-080		TR,2SA1980G
	87-A30-255-010		TR,2SB1342
	87-A30-256-010		TR,2SD1933
DIODE			
	87-A40-393-090		DIODE,1N5402GW(F20)
	87-020-465-080		DIODE,1SS133 (110MA)
	87-A40-553-080		DIODE,1N4003 LES
	87-A40-776-080		ZENER,UZ27BSD
	87-A40-764-080		ZENER,UZ10BSC
	87-A40-270-080		C-DIODE,MC2838
	87-A40-269-080		C-DIODE,MC2836
	87-A40-291-080		DIODE,1N4148M(CPT)
	87-A40-234-080		ZENER,MTZJ5.6A
	87-A40-539-080		ZENER,MTZJ2.4A
	87-017-149-080		ZENER,HZS6A2L
MAIN C.B			
C9	87-A12-317-080		C-CAP,U 0.1-50 Z F
C10	87-A12-317-080		C-CAP,U 0.1-50 Z F
C11	87-A12-317-080		C-CAP,U 0.1-50 Z F
C12	87-A12-317-080		C-CAP,U 0.1-50 Z F
C21	87-A10-520-000		CAP, E 3300-35 M SMG
C22	87-A10-520-000		CAP, E 3300-35 M SMG
C25	87-010-407-080		CAP, E 33-50 M 11L SME
C26	87-010-407-080		CAP, E 33-50 M 11L SME
C27	87-010-407-080		CAP, E 33-50 M 11L SME
C28	87-010-407-080		CAP, E 33-50 M 11L SME
C30	87-010-247-080		CAP, E 100-50 M SME
C31	87-A12-062-080		CAP,E 100-10 SMG
C32	87-012-286-080		C-CAP, U 0.01-25
C33	87-A12-062-080		CAP,E 100-10 SMG
C34	87-010-384-080		CAP, E 100-25 M 11L SME
C35	87-A12-066-080		CAP,E 47-16 SMG
C36	87-010-381-080		CAP, ELECT 330-16V
C38	87-012-286-080		C-CAP, U 0.01-25
C60	87-A12-089-080		CAP,E 3.3-50 SMG
C61	87-A12-071-080		CAP,E 47-25 SMG
C83	87-A12-068-080		CAP, E 470-16 SMG
C97	87-010-759-080		C-CAP,U 0.1-25F
C99	87-010-759-080		C-CAP,U 0.1-25 Z F
C101	87-012-279-080		C-CAP,U 2700P-50 B
C102	87-012-279-080		C-CAP,U 2700P-50 B
C103	87-A12-090-080		CAP,E 4.7-50 SMG
C104	87-A12-090-080		CAP,E 4.7-50 SMG
C107	87-A12-091-080		CAP,E 10-50 SMG
C108	87-A12-091-080		CAP,E 10-50 SMG
C109	87-012-199-080		C-CAP,U 220P-50 CH
C110	87-012-199-080		C-CAP,U 220P-50 CH
C111	87-010-392-080		CAP ELECT 33SME-35V
C112	87-010-392-080		CAP ELECT 33SME-35V
C113	87-012-195-080		C-CAP,U 100P-50 CH
C114	87-012-195-080		C-CAP,U 100P-50 CH
C115	87-012-167-080		C-CAP,S 5P-50 CH
C116	87-012-167-080		C-CAP,S 5P-50 CH
C117	87-A12-317-080		C-CAP,U 0.1-50 Z F
C118	87-A12-317-080		C-CAP,U 0.1-50 Z F
C119	87-012-286-080		C-CAP,U 0.01-25
C120	87-012-286-080		C-CAP,U 0.01-25
C121	87-A12-090-080		CAP,E 4.7-50 SMG
C122	87-A12-090-080		CAP,E 4.7-50 SMG
C123	87-010-177-080		C-CAP,S 820P-25 J SL C2012
C124	87-010-177-080		C-CAP,S 820P-25 J SL C2012
C133	87-012-282-080		C-CAP,U 4700P-50
C140	87-012-278-080		C-CAP,U 2200P-50
C223	87-012-272-080		C-CAP,U 680P-50 B
C224	87-012-272-080		C-CAP,U 680P-50 B
C225	87-A12-317-080		C-CAP,U 0.1-50 Z F
C226	87-A12-317-080		C-CAP,U 0.1-50 Z F
C227	87-A12-317-080		C-CAP,U 0.1-50 Z F
C228	87-A12-317-080		C-CAP,U 0.1-50 Z F
C229	87-012-287-080		C-CAP,U 0.015-25 F
C230	87-012-287-080		C-CAP,U 0.015-25 F
C231	87-012-286-080		CAP, U 0.01-25
C232	87-012-286-080		CAP, U 0.01-25
C241	87-010-759-080		C-CAP,U 0.1-25 Z F
C301	87-012-274-080		CHIP CAP,U 1000P-50B
C302	87-012-274-080		CHIP CAP,U 1000P-50B
C303	87-012-274-080		CHIP CAP,U 1000P-50B
C304	87-012-274-080		CHIP CAP,U 1000P-50B
C307	87-A12-062-080		CAP,E 100-10 SMG
C308	87-A12-062-080		CAP,E 100-10 SMG
C309	87-012-195-080		C-CAP,U 100P-50 J CH
C310	87-012-195-080		C-CAP,U 100P-50 J CH
C313	87-012-284-080		CAP, U 6800P-50
C314	87-012-284-080		CAP, U 6800P-50
C315	87-A12-062-080		CAP,E 100-10 SMG
C317	87-A12-085-080		CAP,E 0.33-50 SMG
C318	87-A12-085-080		CAP,E 0.33-50 SMG
C326	87-016-118-080		C-CAP,U 0.022-25BJ
C327	87-A12-317-080		C-CAP,U 0.1-50 Z F
C350	87-012-286-080		C-CAP,U 0.01-25 K B
C360	87-A12-087-080		CAP,E 1-50 SMG
C365	87-010-759-080		C-CAP,U 0.1-25 Z F
C399	87-012-270-080		CAP, U 470P-50
C401	87-A12-083-080		CAP,E 0.1-50 SMG
C402	87-A12-083-080		CAP,E 0.1-50 SMG
C403	87-012-193-080		C-CAP,U 82P-50 CH
C404	87-012-193-080		C-CAP,U 82P-50 CH
C405	87-012-286-080		CAP, U 0.01-25
C406	87-012-286-080		CAP, U 0.01-25
C407	87-012-286-080		CAP, U 0.01-25
C408	87-012-286-080		CAP, U 0.01-25

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C409	87-012-278-080		C-CAP,U 2200P-50 B
C410	87-012-278-080		C-CAP,U 2200P-50 B
C411	87-A12-091-080		CAP,E 10-50 SMG
C412	87-A12-091-080		CAP,E 10-50 SMG
C452	87-A12-092-080		CAP,E 22-50 SMG
C453	87-012-279-080		C-CAP,U 2700P-50 B
C454	87-012-279-080		C-CAP,U 2700P-50 B
C455	87-012-279-080		C-CAP,U 2700P-50 B
C456	87-012-286-080		CAP, U 0.01-25
C457	87-A12-361-080		CAP,M 5600P-100 J CP
C458	87-012-274-080		CHIP CAP,U 1000P-50B
C459	87-012-271-080		CAP, U 560P-50
C460	87-010-759-080		C-CAP,U, 0.1-25F
C461	87-012-269-080		C-CAP,U 390P-50 B
C462	87-012-269-080		C-CAP,U 390P-50 B
C470	87-018-127-080		CAP, CER 470P-50V
C605	87-012-275-080		C-CAP,U 1200P-50 B
C606	87-012-275-080		C-CAP,U 1200P-50 B
C609	87-012-287-080		C-CAP,U 0.015-25 F
C610	87-012-287-080		C-CAP,U 0.015-25 F
C611	87-A12-084-080		CAP,E 0.22-50 SMG
C612	87-A12-084-080		CAP,E 0.22-50 SMG
C613	87-A12-084-080		CAP,E 0.22-50 SMG
C614	87-A12-084-080		CAP,E 0.22-50 SMG
C615	87-012-172-080		CAPACITOR CHIP U 10P CH
C616	87-010-221-080		CAP, ELECT 470-10V
C617	87-010-221-080		CAP, ELECT 470-10V
C618	87-A12-091-080		CAP,E 10-50 SMG
C623	87-010-402-080		CAP, ELECT 2.2-50V
C624	87-010-402-080		CAP, ELECT 2.2-50V
C630	87-010-759-080		C-CAP,U, 0.1-25F
C669	87-012-195-080		C-CAP,U 100P-50CH
C670	87-012-195-080		C-CAP,U 100P-50CH
C677	87-012-286-080		CAP, U 0.01-25
C771	87-A12-062-080		CAP,E 100-10 SMG
C772	87-012-286-080		CAP, U 0.01-25
C779	87-010-949-080		C-CAP,S 0.01-50 J B
C780	87-010-949-080		C-CAP,S 0.01-50 J B
C782	87-012-286-080		CAP, U 0.01-25
C783	87-012-286-080		CAP, U 0.01-25
C784	87-012-286-080		CAP, U 0.01-25
C785	87-012-286-080		CAP, U 0.01-25
C786	87-012-286-080		CAP, U 0.01-25
C788	87-012-167-080		C-CAP,U 5P-50 CH
C789	87-016-118-080		C-CAP,U 0.022-25 J B GRM
C790	87-016-118-080		C-CAP,U 0.022-25 J B GRM
C791	87-010-831-080		C-CAP,U,0.1-16F
C792	87-012-286-080		CAP, U 0.01-25
C793	87-A12-090-080		CAP,E 4.7-50 SMG
C795	87-012-286-080		CAP, U 0.01-25
C796	87-012-286-080		CAP, U 0.01-25
C797	87-A12-091-080		CAP,E 10-50 SMG
C798	87-012-286-080		CAP, U 0.01-25
C799	87-010-265-080		CAP,E 33-16 M 11L SME
C800	87-010-829-080		CAP, U 0.047-16
C801	87-A12-089-080		CAP,E 3.3-50 SMG
C802	87-010-829-080		CAP, U 0.047-16
C803	87-010-787-080		CAP, U 0.022-25 K B
C804	87-A12-062-080		CAP,E 100-10 SMG
C807	87-A12-086-080		CAP,E 0.47-50 SMG
C808	87-A12-087-080		CAP,E 1-50 SMG
C809	87-A12-087-080		CAP,E 1-50 SMG
C810	87-010-831-080		C-CAP,U,0.1-16F
C814	87-012-286-080		CAP, U 0.01-25
C815	87-A12-086-080		CAP,E 0.47-50 SMG
C816	87-A12-086-080		CAP,E 0.47-50 SMG
C818	87-012-276-080		C-CAP,U 1500P-50 K B
C821	87-A12-091-080		CAP,E 10-50 SMG
C823	87-012-349-080		C-CAP,S 1000P-50 J CH GRM
C824	87-A12-090-080		CAP,E 4.7-50 SMG
C825	87-010-829-080		CAP, U 0.047-16
C831	87-A12-092-080		CAP,E 22-50 SMG
C842	87-012-286-080		CAP, U 0.01-25
C844	87-012-286-080		CAP, U 0.01-25
C850	87-A12-071-080		CAP,E 47-25 SMG
C851	87-012-286-080		CAP, U 0.01-25
C852	87-012-286-080		CAP, U 0.01-25
C853	87-012-286-080		CAP, U 0.01-25
C858	87-010-831-080		C-CAP,U 0.1-16 Z F
C859	87-010-831-080		C-CAP,U 0.1-16 Z F
C860	87-012-286-080		C-CAP,U 0.01-25 K B
C869	87-012-286-080		C-CAP,U 0.01-25 K B
C870	87-012-274-080		C-CAP,U 1000P-50 K B
C871	87-012-199-080		C-CAP,U 220P-50 J CH
C872	87-012-199-080		C-CAP,U 220P-50 J CH
C873	87-A10-039-080		C-CAP,U 470P-50 J CH
C874	87-A12-091-080		CAP,E 10-50 SMG
C875	87-010-759-080		C-CAP,U 0.1-25 Z F
C876	87-A12-091-080		CAP,E 10-50 SMG
C877	87-012-286-080		C-CAP,U 0.01-25 K B
C878	87-012-184-080		C-CAP,U 33P-50 J CH
C879	87-012-180-080		C-CAP,U 22P-50 J CH
C940	87-012-286-080		C-CAP,U 0.01-25 K B
C942	87-012-165-080		C-CAP,U 3P-50 C CH
C947	87-012-286-080		C-CAP,U 0.01-25 K B
C948	87-A10-039-080		C-CAP,U 470P-50 J CH
C952	87-012-286-080		C-CAP,U 0.01-25 K B
C957	87-012-174-080		C-CAP,U 12P-50 J CH
C958	87-012-286-080		C-CAP,U 0.01-25 K B
C959	87-010-831-080		C-CAP,U,0.1-16F
C960	87-010-831-080		C-CAP,U,0.1-16F
C962	87-A12-087-080		CAP,E 1-50 SMG
C963	87-015-785-080		CHIP CAPACITOR, 0.1-25 Z F
C971	87-A12-067-080		CAP,E 330-16 SMG
C972	87-A12-090-080		CAP,E 4.7-50 SMG
C973	87-012-286-080		CAP, U 0.01-25
C974	87-012-286-080		CAP, U 0.01-25
C979	87-012-195-080		C-CAP,U 100P-50CH
C981	87-A12-071-080		CAP,E 47-25 SMG
C982	87-010-831-080		C-CAP,U,0.1-16F
C983	87-012-286-080		CAP, U 0.01-25 K B
C984	87-012-286-080		CAP, U 0.01-25 K B
C985	87-012-195-080		C-CAP,U 100P-50 J CH
C987	87-012-286-080		CAP, U 0.01-25 K B
C989	87-012-286-080		C-CAP, U 0.01-25 K B
C991	87-012-176-080		C-CAP,U 15P-50 J CH
C992	87-012-176-080		C-CAP,U 15P-50 J CH
C993	87-012-274-080		CHIP CAP,U 1000P-50B
C995	87-012-274-080		CHIP CAP,U 1000P-50B
C997	87-010-831-080		C-CAP,U,0.1-16F
C998	87-A12-071-080		CAP,E 47-25 SMG
C999	87-A11-155-080		CAP,TC U 0.01-16 Z F
CF831	87-008-423-010		FILTER, CF SFE10.7MS3G-A
CF832	82-785-747-010		CF,MS2 GHY,R
CN301	87-A60-620-010		CONN,3P V 2MM JMT
CN351	87-A60-625-010		CONN,8P V 2MM JMT
CN601	87-099-719-010		CONN,30P TYK-B(X)
CN602	87-A60-131-010		CONN,6P V FE
CNA301	8A-MA6-642-110		CONN ASSY,3P (PH)
CNA351	8A-MA6-641-010		CONN ASSY,8P RPB
FC602	88-906-321-110		FF-CABLE,6P 1.25 320mm
FFE831	A8-6ZA-19H-030		6ZA-1 FEMENM
J201	87-A60-488-010		JACK,DIA6.3 BLK ST W/SW KM16AT
J203	87-A60-238-010		TERMINAL,SP 4P (MSC)
J602	87-A60-881-010		JACK,PIN 2P MSP 242V05 PBSN
J832	87-A60-403-010		TERMINAL,ANT PAL 2P HSP-312V05
L201	87-A50-610-010		COIL,1UH K(MDEC)
L202	87-A50-610-010		COIL,1UH K(MDEC)
L451	87-007-342-010		COIL,OSC 85KHZ BIAS
L801	87-A50-608-010		COIL,FM DET-N(TOK)

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
L802	87-A91-551-010		FLTR,PCFJZH-450 L(TOK)
L811	87-005-847-080		COIL,2.2UH CECS
L832	87-005-847-080		COIL,2.2UH CECS
L861	87-005-847-080		COIL,2.2UH K CECS
L941	87-A50-020-010		COIL,ANT LW (COI) 252KHZ
L942	87-A50-019-010		COIL,OSC LW (COI) 856KHZ
L951	8A-NF8-668-010		COIL,AM PACK 2(TOK)
R129	87-A00-258-080		RES,M/F 0.22-1W J
R130	87-A00-258-080		RES,M/F 0.22-1W J
R131	87-A00-258-080		RES,M/F 0.22-1W J
R132	87-A00-258-080		RES,M/F 0.22-1W J
R243	87-A00-440-050		RES,220-1/2W J RP
R244	87-A00-440-050		RES,220-1/2W J RP
R245	87-A00-440-050		RES,220-1/2W J RP
R246	87-A00-440-050		RES,220-1/2W J RP
R790	87-012-286-080		CAP, U 0.01-25
R991	87-012-195-080		C-CAP,U 100P-50CH
R993	87-012-195-080		C-CAP,U 100P-50CH
R995	87-012-195-080		C-CAP,U 100P-50CH
SFR451	87-024-435-080		SFR,33K H RH063MC
SFR452	87-024-435-080		SFR,33K H RH063MC
TC942	87-A91-774-080		TRIMMER, PLY 30P 6.8X5.4 CDYL
TH101	87-A91-042-080		C-THMS,100K 55001
TH102	87-A91-042-080		C-THMS,100K 55001
W99	8B-MA6-609-010		F-CABLE,7P 2.5 480MM
WH1	87-A90-510-010		HLDR,WIRE 2.5-9P
X862	87-A70-307-010		VIB,XTAL 4.332MHZ CSA-309ST
X992	87-A70-306-010		VIB,XTAL 4.500MHZ CSA-309ST

FRONT C.B

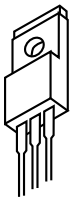
C101	87-A11-147-080		CAP,TC U 0.047-50 Z F
C102	87-A11-124-080		CAP,TC U 2200P-50 K B
C104	87-010-246-040		CAP,E 47-35 SME
C105	87-A11-146-080		CAP,TC U 0.022-50 Z F
C106	87-010-374-040		CAP,E 47-10 M 11L SME
C107	87-018-205-080		CAP, CERA-SOL 0.022
C108	87-018-131-080		CAP, CER 1000P-50V
C109	87-018-131-080		CAP, CER 1000P-50V
C110	87-018-131-080		CAP, CER 1000P-50V
C111	87-010-404-040		CAP,E 4.7-50 SME
C112	87-A11-148-080		CAP,TC U 0.1-50 Z F
C113	87-018-131-080		CAP, CER 1000P-50V
C114	87-018-147-080		CAP,TC-U 10P-50 CH
C115	87-018-128-080		CAP, CERA-SOL SS 560P
C116	87-010-400-040		CAP,E 0.47-50
C117	87-A11-148-080		CAP,TC U 0.1-50 Z F
C118	87-010-248-040		CAP,E 220-10 SME
C120	87-018-123-080		CAP, CER 220P-50V
C130	87-010-405-040		CAP,E 10-50
C135	87-A11-148-080		CAP,TC U 0.1-50 Z F
C201	87-018-118-080		CAP,TC-U 82P-50 B
C202	87-018-117-080		CAP,TC-U 68P-50 SL
C205	87-018-117-080		CAP,TC-U 68P-50 SL
C208	87-018-117-080		CAP,TC-U 68P-50 SL
C209	87-018-117-080		CAP,TC-U 68P-50 SL
C210	87-018-117-080		CAP,TC-U 68P-50 SL
C211	87-A11-147-080		CAP,TC U 0.047-50 Z F
C212	87-010-404-040		CAP,E 4.7-50 SME
C213	87-010-404-040		CAP,E 4.7-50 SME
C216	87-A11-147-080		CAP,TC U 0.047-50 Z F

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C701	87-010-384-040		CAP,E 100-25 SME
CN101	87-099-720-010		CONN,30P TYK-B(P)
CN701	87-A60-673-010		CONN,9P H 2MM JMT
CN801	87-A60-133-010		CONN,8P V FE
FC801	88-908-271-110		FF-CABLE,8P 1.25 27
FL201	8A-NFA-604-010		FL,10-BT-224GNK
L101	87-A50-408-010		COIL,OSC 5.76MHZ
LED101	87-A40-317-080		LED,SLR-342VCT31 RED
S101	87-A92-071-010		SW,RTRY EC12E24508-30MM
S301	87-A90-095-080		SW,TACT EVQ11G04M
S302	87-A90-095-080		SW,TACT EVQ11G04M
S303	87-A90-095-080		SW,TACT EVQ11G04M
S304	87-A90-095-080		SW,TACT EVQ11G04M
S305	87-A90-095-080		SW,TACT EVQ11G04M
S306	87-A90-095-080		SW,TACT EVQ11G04M
S307	87-A90-095-080		SW,TACT EVQ11G04M
S308	87-A90-095-080		SW,TACT EVQ11G04M
S309	87-A90-095-080		SW,TACT EVQ11G04M
S310	87-A90-095-080		SW,TACT EVQ11G04M
S311	87-A90-095-080		SW,TACT EVQ11G04M
S312	87-A90-095-080		SW,TACT EVQ11G04M
S321	87-A90-095-080		SW,TACT EVQ11G04M
S322	87-A90-095-080		SW,TACT EVQ11G04M
S323	87-A90-095-080		SW,TACT EVQ11G04M
S324	87-A90-095-080		SW,TACT EVQ11G04M
S325	87-A90-095-080		SW,TACT EVQ11G04M
S326	87-A90-095-080		SW,TACT EVQ11G04M
S327	87-A90-095-080		SW,TACT EVQ11G04M
S328	87-A90-095-080		SW,TACT EVQ11G04M
S329	87-A90-095-080		SW,TACT EVQ11G04M
S330	87-A90-095-080		SW,TACT EVQ11G04M
S331	87-A90-095-080		SW,TACT EVQ11G04M
SFR701	87-024-352-080		SFR,4.7K H EVN DJAA03

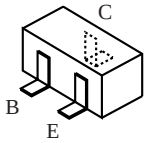
PT C.B

C85	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
⚠ PT1	8B-MA6-662-010		PT,BMA-6 EZ
⚠ PT81	8B-MA6-675-010		PT,SUB BMA E (VRK)
⚠ RY81	87-A91-418-010		RELAY,AC 12V G5PA-1-M
⚠ T81	87-A60-317-010		TERMINAL, 1P MSC
⚠ T82	87-A60-317-010		TERMINAL, 1P MSC
WH81	87-A90-510-010		HLDR,WIRE 2.5-9P

TRANSISTOR ILLUSTRATION

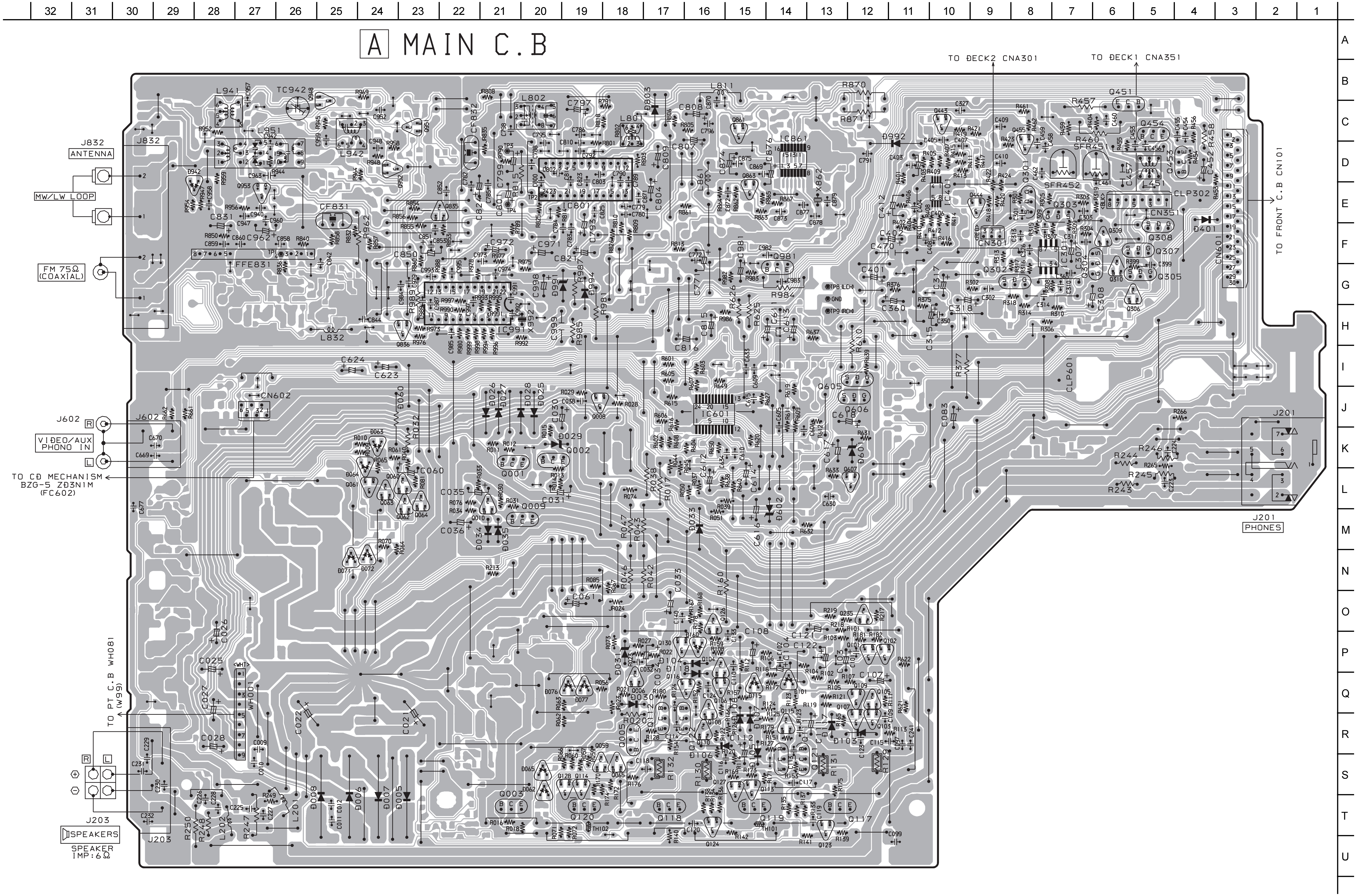


B C E

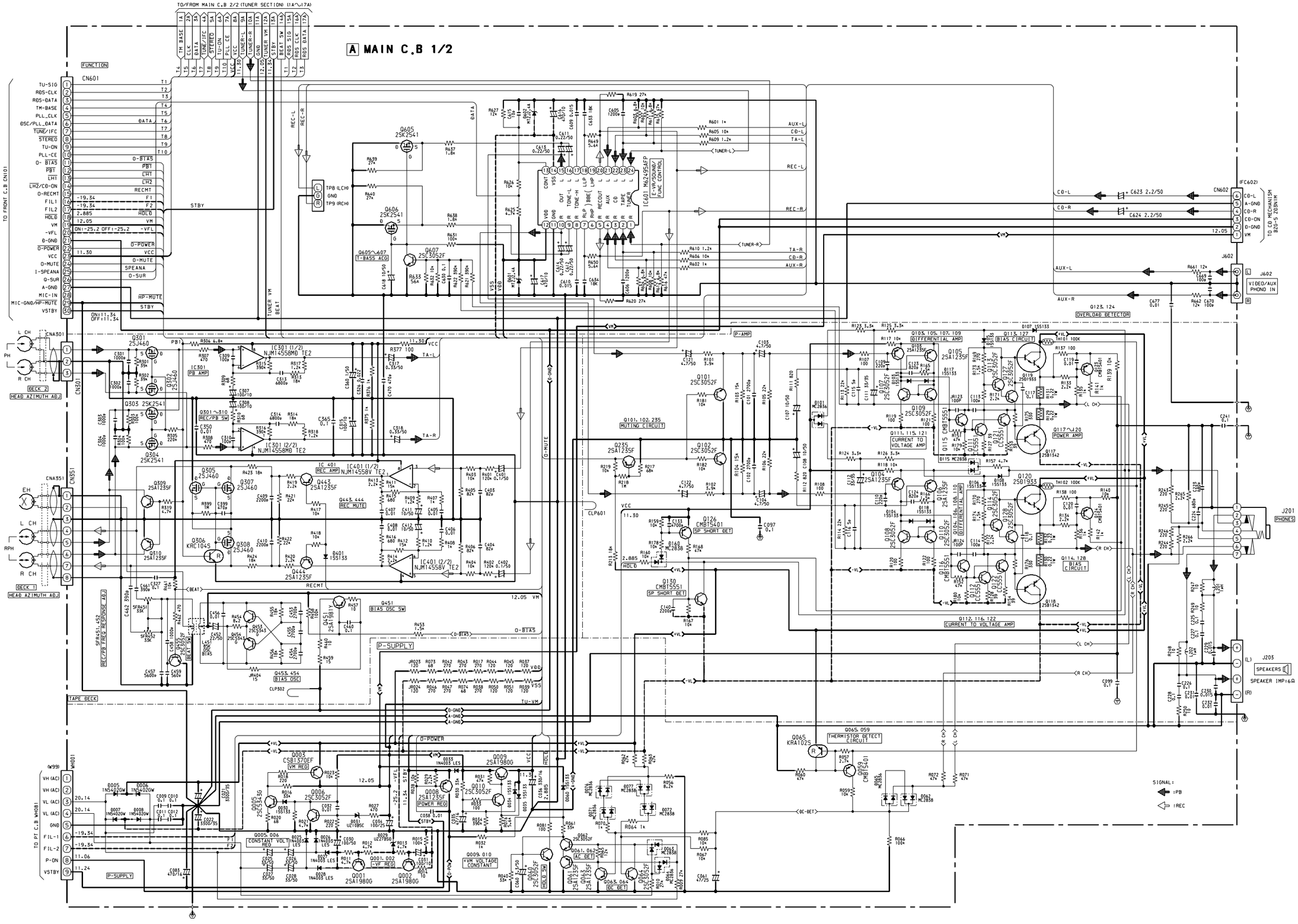


CSD 1306E

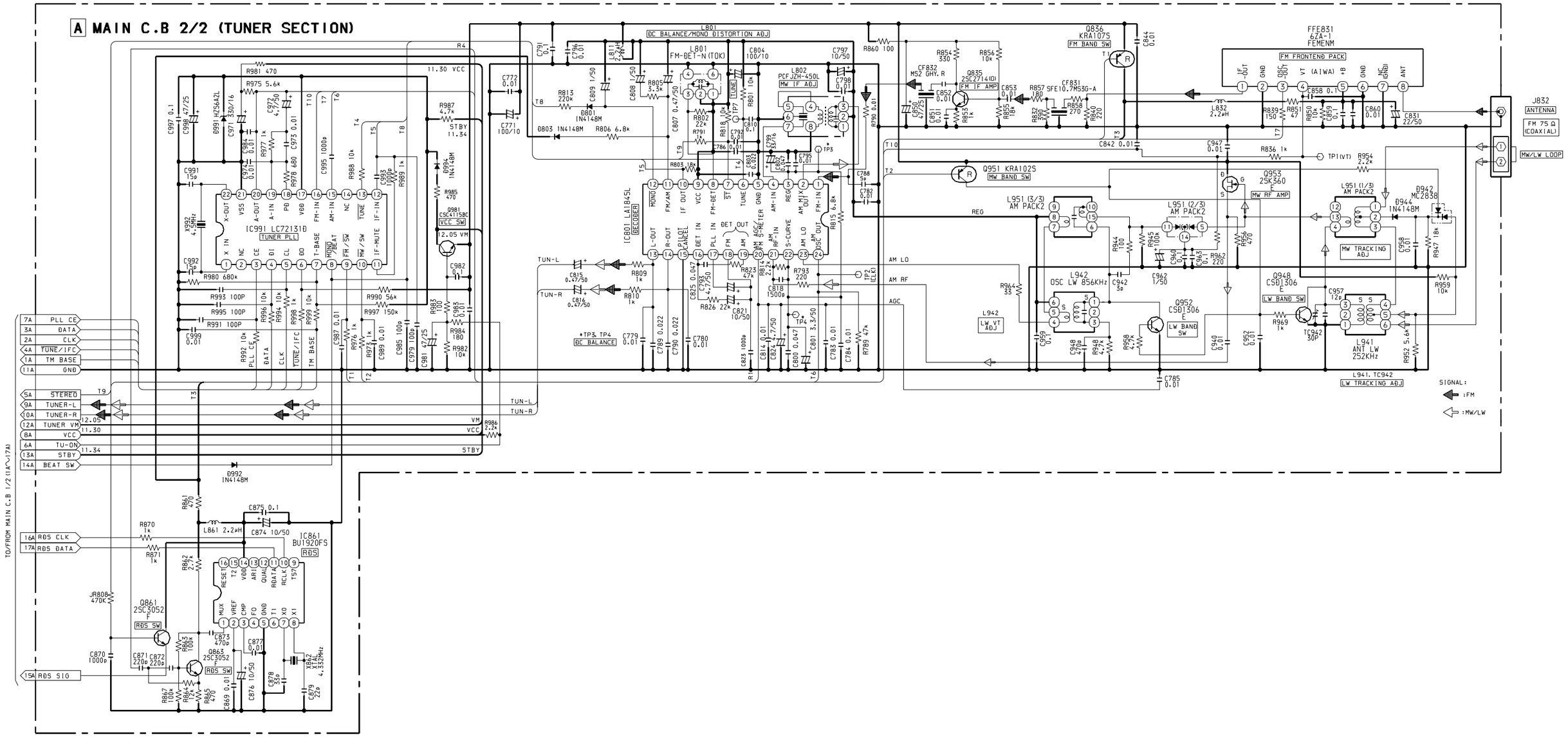
2SB1342
2SD1933


A MAIN C.B
J832
ANTENNA
MW/LW LOOP
FM 75Ω (COAXIAL)
J602
VIDEO/AUX PHONO IN
TO CD MECHANISM BZG-5 ZD3N1M (FC602)
TO PT C.B WH081 (W99)
J203
SPEAKERS
SPEAKER IMP:6Ω
TO DECK2 CNA301
TO DECK1 CNA351
TO FRONT C.B CN101
J201
PHONES
32 31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1
A B C D E F G H I J K L M N O P Q R S T U

SCHEMATIC DIAGRAM - 1 (MAIN 1/2)



SCHEMATIC DIAGRAM - 2 (MAIN 2/2) <TUNER>



32 31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

A B C D E F G H I J K L M N O P Q R S T U

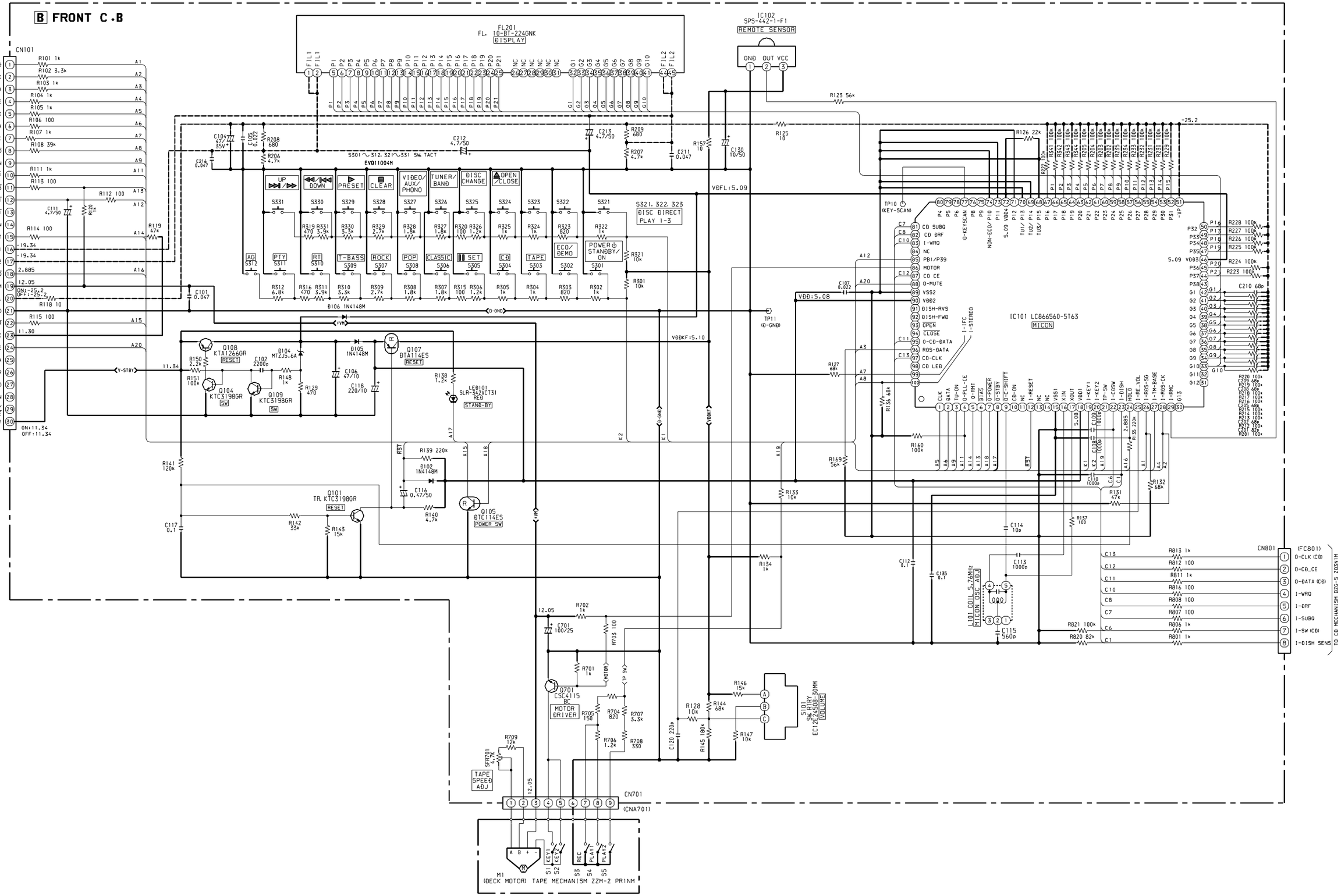
B FRONT C.B

S307 ROCK
S309 T-BASS
S308 POP
S101 VOLUME
FL201 (DISPLAY)
IC102 (REMOTE SENSOR)

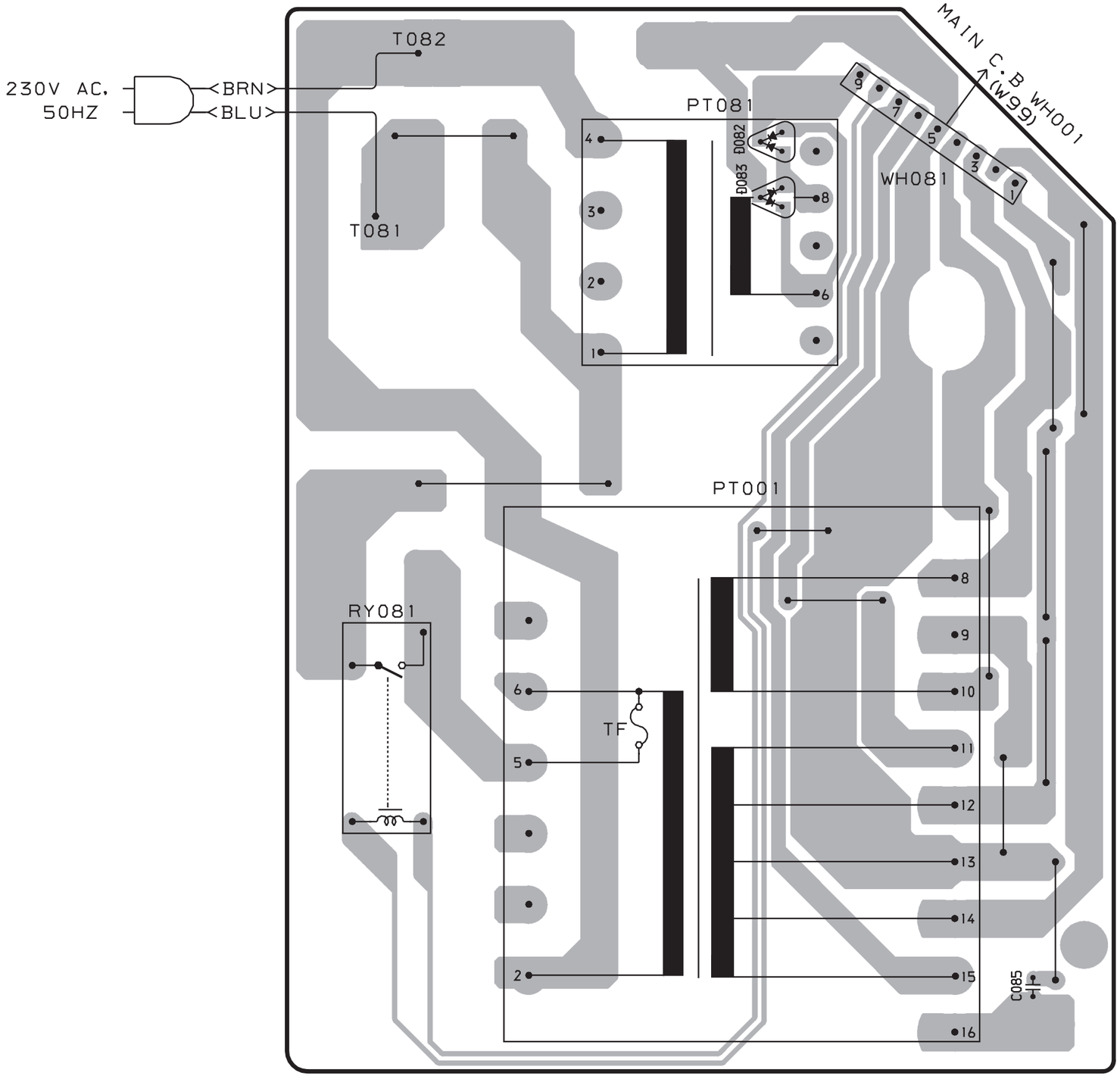
TO CD MECHANISM BZG-5 ZDSN1M (FC801)
CN801
TO MAIN C.B CN601
CN701
(CNA701) TO TAPE MECHANISM ZZM-2 PR1NM
IC101
L101
Q101 Q102 Q103 Q104 Q105 Q106 Q107 Q108 Q109
D101 D102 D104 D105 D106
LED101
SFR701

S302 ECO/DEMO
S306 CLASSIC
S312 AG
S324 OPEN/CLOSE
S310 RT
S325 DISC CHANGE
S311 PTY
S321, 322, 323 DISC DIRECT PLAY 1-3
S326 TUNER/BAND
S304 CD
S303 TAPE
S329 ▶ PRESET
S328 ■ CLEAR
S305 ❚❚ SET
S327 VIDEO/AUX/PHONO
S331 UP ▶▶|/▶▶
S330 |◀◀/◀◀ DOWN
S301, LED101 POWER ⏻ STANDBY/ON

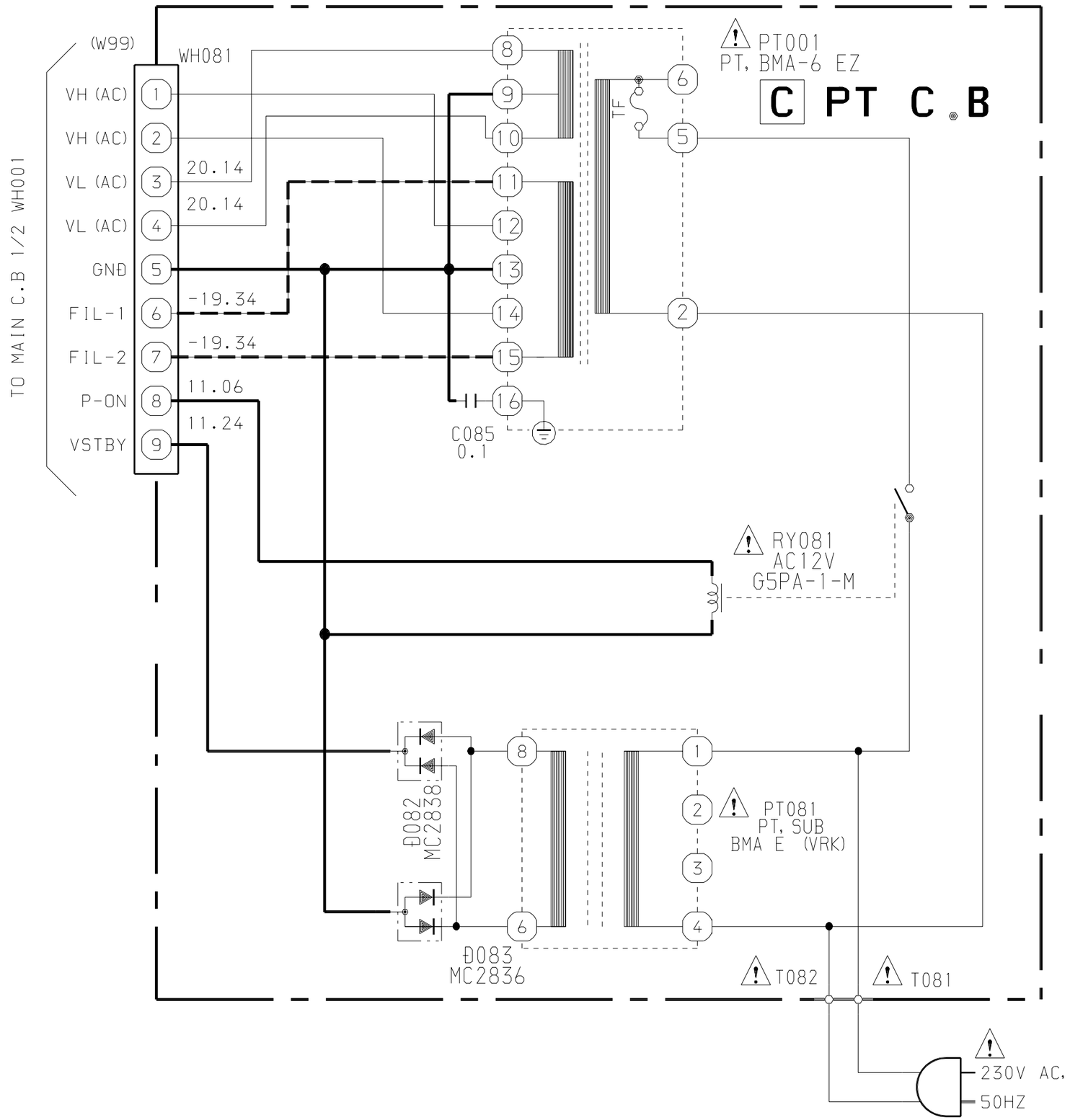
SCHEMATIC DIAGRAM - 3 (FRONT)



C PT C.B

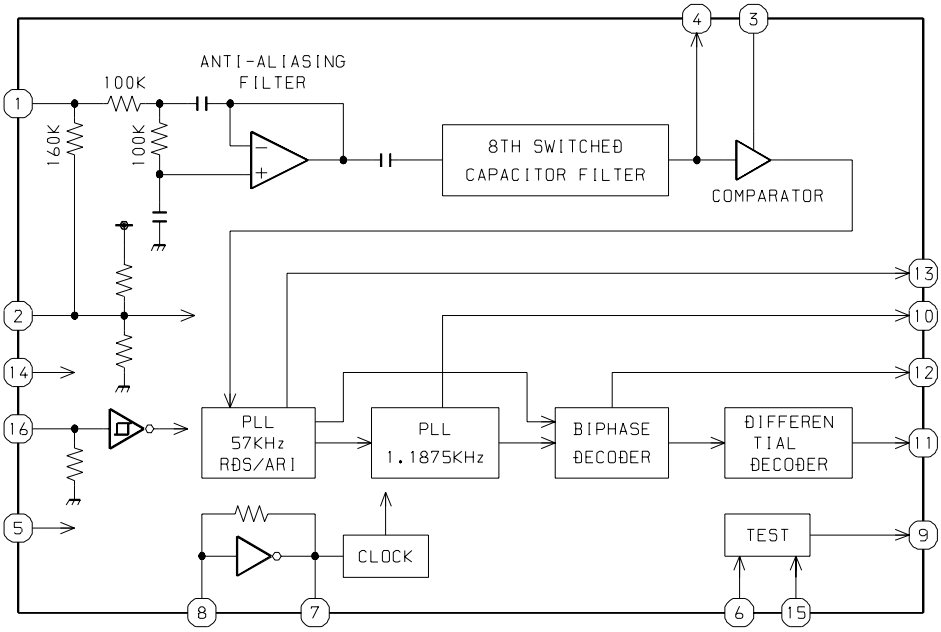

TO MAIN C.B WH001
(W99)
230V AC.
50HZ
<BRN>
<BLU>
T082
T081
PT081
D082
D083
WH081
PT001
RY081
TF
C085

SCHEMATIC DIAGRAM - 4 (PT)



IC BLOCK DIAGRAM

IC, BU1920FS



ADJUSTMENT – 1 <TUNER/FRONT>

< TUNER SECTION >

1. Clock Frequency Check
   Settings : • Test point : TP2 (CLK)
   Method : Set to MW 1602kHz and check that the test point is 2052kHz ± 45Hz.

2. MW VT Check
   Settings : • Test point : TP1 (VT)
   Method : Set to MW 1602kHz and check that the test point is less than 8.0V. Then set to MW 531kHz and check that the test point is more than 0.6V.

3. FM VT Check
   Settings : • Test point : TP1 (VT)
   Method : Set to FM 108.0MHz and check that the test point is less than 8.0V. Then set to FM 87.5MHz and check that the test point is more than 0.5V.

4. FM Tracking Check
   Settings : • Test point : TP8 (Lch), TP9 (Rch)
   Method : Set to FM 98.0MHz and check that the test point is less than 13dBμV.

5. LW VT Adjustment
   Settings : • Test point : TP1 (VT)
   • Adjustment location : L942
   Method : Set to LW 144kHz and adjust L942 so that the test point becomes 1.3V ± 0.05V. Then set to LW 290kHz and check that the test point is less than 8.0V.

6. LW Tracking Adjustment
   Settings : • Test point : TP8 (Lch), TP9 (Rch)
   • Adjustment location :
   L941 ..... 144kHz
   TC942 ..... 290kHz
   Method : Set up TC942 to center before adjustment. The level at 144kHz is adjusted to maximum by L941. Then the level at 290kHz is adjusted to maximum by TC942.

7. MW Tracking Adjustment
   Settings : • Test point : TP8 (Lch), TP9 (Rch)
   • Adjustment location :
   L951 (1/3) 1000kHz
   Method : Set to MW 999kHz and adjust L951 (1/3) so that the test point becomes maximum.

8. MW IF Adjustment
   Settings : • Test point : TP8 (Lch), TP9 (Rch)
   • Adjustment location :
   L802 ..... 450kHz

9. DC Balance / Mono Distortion Adjustment
   Settings : • Test point : TP3, TP4 (DC)
   TP8 (Lch), TP9 (Rch)
   (Distortion)
   • Adjustment location : L801
   • Input level : 60dBμV
   Method : Set to FM 98.0MHz and adjust L801 so that the voltage between TP3 and TP4 becomes 0V ± 300mV with distortion less than 1.2%.

10. Output Level Check
    <MW>
    Settings : • Test point : TP8 (Lch), TP9 (Rch)
    • Input level : 74dBμV
    Method : Set to MW 999kHz and check that the test point is 40mV ± 3dB.

    <FM>
    Settings : • Test point : TP8 (Lch), TP9 (Rch)
    • Input level : 60dBμV
    Method : Set to FM 98.0MHz and check that the test point is 140mV ± 3dB.

11. FM Separation Check
    Settings : • Test point : TP8 (Lch), TP9 (Rch)
    • Input level : 60dBμV
    Method : Set to FM 98.0MHz and check that the test point is more than 12dB.

< FRONT SECTION >

12. MICON OSC Adjustment
    Settings : • Test point : TP10 (KEY-SCAN)
    TP11 (D-GND)
    • Adjustment location : L101
    Method : Insert AC plug while pressing of "POWER" key and "TUNER" function key.
    Connect a frequency counter across TP10 and TP11.
    Then adjust L101 so that the test point becomes 171.46Hz ± 0.17Hz.

    [Manual Reset]
    Make up for RESET after adjustment.
    * Reset is to press "POWER" key while pressing of "CLEAR (STOP)" key.

ADJUSTMENT – 2 <DECK>

< DECK SECTION >

1. Tape Speed Adjustment (DECK 1)
   Settings : • Test tape : TTA–100
   • Test point : TP8 (Lch), TP9 (Rch)
   • Adjustment location : SFR701
   Method : Play back the test tape and adjust SFR701 so that the test point becomes 3000Hz ± 5Hz (FWD) and FWD SPEED ± 45Hz (REV) with respect to forward speed.

2. Head Azimuth Adjustment (DECK 1, DECK 2)
   Settings : • Test tape : TTA–330
   • Test point : TP8 (Lch), TP9 (Rch)
   • Adjustment location : Head azimuth adjustment screw
   Method : Play back (FWD) the 8kHz signal of the test tape and adjust screw so that the output becomes maximum. Next, perform on REV PLAY mode.

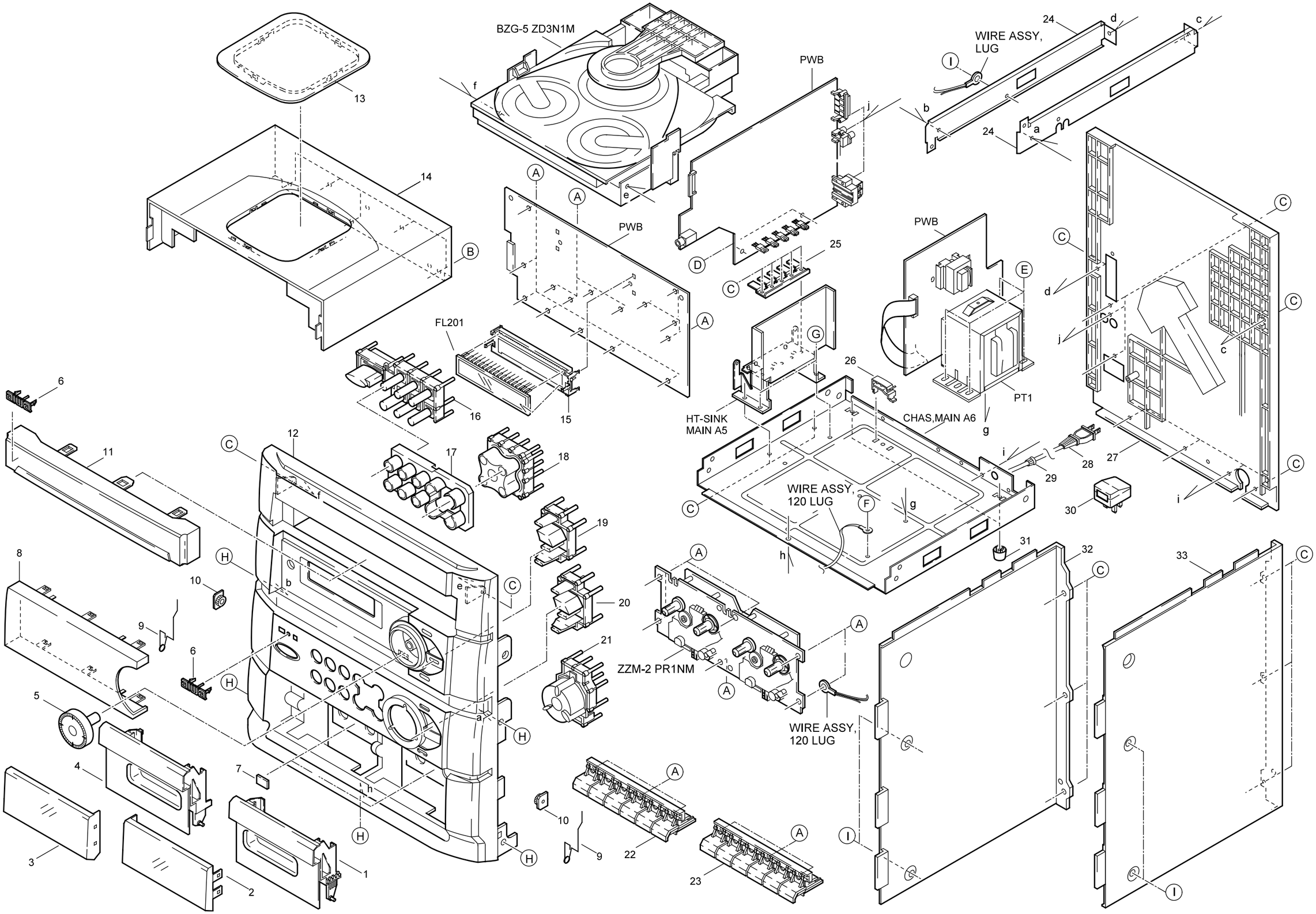
3. PB Frequency Response Check (DECK 1, DECK 2)
   Settings : • Test tape : TTA–330
   • Test point : TP8 (Lch), TP9 (Rch)
   Method : Play back the 315Hz and 8kHz signals of the test tape and check that the output ratio of the 8kHz signal with respect to that of the 315Hz signal is 0dB ± 5dB.

4. PB Sensitivity Check (DECK 1, DECK 2)
   Settings : • Test tape : TTA–200
   • Test point : TP8 (Lch), TP9 (Rch)
   Method : Play back the test tape and check that the output level of the test point is 140mV ± 3dB.

5. REC/PB Frequency Response Adjustment (DECK 1)
   Settings : • Test tape : TTA–602
   • Test point : TP8 (Lch), TP9 (Rch)
   • Input signal : 1kHz / 8kHz (–20VU)
   • Adjustment location : SFR451 (Lch) SFR452 (Rch)
   Method : Apply a 1kHz signal and REC mode. Then adjust OSC attenuator so that the output level at the TP8, TP9 becomes 0 dB (10mV). Record and play back the 1kHz and 8kHz signals and adjust SFRs so that the output of the 10kHz signals becomes 0dB ± 1dB with respect to that of the 1kHz signal.

6. REC/PB Sensitivity Check (DECK 1)
   Settings : • Test tape : TTA–602
   • Test point : TP8 (Lch), TP9 (Rch)
   • Input signal : 1kHz (0VU)
   Method : Apply a 1kHz signal and REC mode. Then adjust OSC attenuator so that the output level at TP8, TP9 becomes 0 dB (100mV). Record and play back the 1kHz signals and check that the output is –1dB ± 3.5dB.

MECHANICAL EXPLODED VIEW 1 / 1



MECHANICAL PARTS LIST 1 / 1

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	8B-MA6-026-010		BOX,CASS R A6
2	8B-MA6-056-010		WINDOW,CASS R A6
3	8B-MA6-055-010		WINDOW,CASS L A6
4	8B-MA6-025-010		BOX,CASS L A6
5	8B-MA3-105-010		KNOB ASSY,RTRY VOL
6	87-B00-002-010		BADGE,AIWA 30 ABS SIL
7	81-532-080-010		LABEL, CASS. COMPT
8	8B-MA6-052-010		WINDOW,DISP RDS A6
9	8Z-CL8-209-010		SPR-T,CASS
10	86-NFZ-231-010		DMPR,70
11	8B-MA6-030-010		PANEL,TRAY A6
12	8B-MA6-002-010		CABI,FR RDS A6
13	8A-MA3-057-010		WINDOW,TOP
14	8B-MA6-019-010		CABI,TOP U
15	8A-NFA-208-010		GUIDE,FL 100-25 ANFA
16	8B-MA6-103-010		KEY ASSY,OPE A6
17	8B-MA6-086-010		RING,OPE A6
18	8B-MA6-071-010		KEY,FUNC A6
19	8B-MA6-064-010		KEY,T-BASS A6
20	8B-MA6-062-010		KEY,OPEN RDS A6
21	8B-MA6-063-010		KEY,DIRECT A6
22	8B-MA6-074-010		KEY,CASS L
23	8B-MA6-075-010		KEY,CASS R
24	88-MA1-208-210		JOINT,CABI
25	8B-MA6-207-010		HLDR,TR A6
26	87-NF4-221-010		HLDR,CABLE
27	8B-MA5-012-010		CABI,REAR K A5
⚠ 28	87-A80-157-010		AC CORD ASSY,E BLK C
29	87-085-185-010		BUSHING, AC CORD (E)
⚠ 30	87-099-811-010		PLUG,ADPTR CONV(K)<K>
31	87-MA3-062-010		FOOT, H17
32	8B-MA3-047-010		PANEL,SIDE L (U)
33	8B-MA3-048-010		PANEL,SIDE R (U)
A	87-078-060-010		BVIT3PB+3-10
B	87-067-758-010		BVT2+3-12 W/O SLOT
C	87-067-703-010		TAPPING SCREW, BVT2+3-10
D	87-NF4-224-010		S-SCREW,IT3B+3-8 CU
E	87-078-200-010		S-SCREW,ITC+4-8 R
F	87-B10-315-010		BVIT3B+3-8 R W/O
G	87-B10-316-010		BVIT3B+3-10 R W/O
H	87-591-095-410		TAPPING SCREW, QIT+3-8 (GLD)
I	87-067-641-010		UTT2+3-8(W/O SLOT)BL

COLOR NAME TABLE

Basic color symbol	Color	Basic color symbol	Color	Basic color symbol	Color
B	Black	C	Cream	D	Orange
G	Green	H	Gray	L	Blue
LT	Transparent Blue	N	Gold	P	Pink
R	Red	S	Silver	ST	Titan Silver
T	Brown	V	Violet	W	White
WT	Transparent White	Y	Yellow	YT	Transparent Yellow
LM	Metallic Blue	LL	Light Blue	GT	Transparent Green
LD	Dark Blue	DT	Transparent Orange	GM	Metallic Green
YM	Metallic Yellow	DM	Metallic Orange	PT	Transparent Pink
LA	Aqua Blue	GL	Light Green		

SPEAKER PARTS LIST
(SX-ZL120) <YSC>

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	8B-MSG-001-010		PANEL,DUCT
2	8B-MSG-002-010		GRILLE,FRAME ASSY
3	8B-MSG-604-010		SPKR, 130
4	83-MSE-605-010		SPKR,CERAMIC
5	8B-MSG-612-010		CORD,SPKR
6	8A-NSJ-006-010		BADGE,AIWA S35

ACCESSORIES / PACKAGE LIST

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	8B-MA6-905-010		IB,K (E) M <K>
1	8B-MA6-906-010		IB,EZ (9L) M <EZ>
2	87-006-268-010		ANT,LOOP AM
3	8Z-NF9-702-010		RC UNIT,ZAS02
4	87-A90-118-010		ANT,WIRE FM (Z)

アイワ株式会社 〒110-8710 東京都台東区池之端1-2-11 ☎03(3827)3111 (代表)
AIWA CO.,LTD. 2-11, IKENOHATA 1-CHOME, TAITO-KU, TOKYO 110, JAPAN TEL:03 (3827) 3111

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